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## PATHOLOGY.

248. Bemerkungen ueber das Verhalten gewisser Organe gegenueber specifischer Infectionen (Observations Concerning the Relation Between Certain Organs and Specific Infections). v. Babes (Berl. klin. Woch., No. 17, 1899).

This paper is a continuation of some work published in 1889. In that paper the author enunciated the fact that normal nerve substance injected into animals with hydrophobia counteracted the effects of that infection. In a later paper he showed that the gall of a rabid dog mixed with the virus of hydrophobia prevented the development of rabies in an infected dog. He concludes from this that in the incubation stage of the disease a substance which normally exists in the nervous system is eliminated from the system through the gall. In a long series of experiments on dogs and rabbits he found in the incubation stage of the disease, when no symptoms, or only slight fever, were present, well-defined changes in the nervous system. These consisted of proliferative changes in the walls of the vessels and chromatolysis of the ganglion cells of the cord and bulb. These changes were first noted around the central canal. The poison, therefore, penetrates the cord from the central canal, producing edema, leucocytosis, irritation of connective tissue, and degeneration of the nerve cells. The poison is distributed along the nerves, and affects the motor centers. The nerve cells attempt to paralyze the effects of the poison by the elimination of their chromatic substance, and so long as sufficient cells remain which do not show this change, symptoms do not develop and the disease does not advance beyond the incubation stage. The liver, therefore, reacts differently, depending on the character of the infection. It may act as a filter, and thus separate the micro-organisms, or it may secrete some material which has a bactericidal action. This substance may pass into the blood and protect it from infection, as in typhoid. Finally, the liver can assist, through the gall, in the elimination of the neutralized virus.

McCarthy.

249. Ueber Veränderungen der Nerven bei acuter Störung der Blutzufuhr (Concerning Changes in the Nerves Caused by Acute Disturbance of the Circulation). M. Lapinsky (Deutsche Zeitschrift für Nervenheilkunde, Vol. 15, Nos. 5 and 6, p. 364).

A number of cases have shown that when an artery is suddenly closed, symptoms of nerve involvement rapidly develop. Lapinsky reports six cases of this character, and proposes the name of neuritis ischæmica for this form of nerve degeneration. From a study of his cases and of others in the literature he thinks:

Ischemia of the extremities lasting a few days can cause disease of the peripheral nerves.

Motor function is impaired, and soon entirely abolished.

Sensation (for touch, pain, location, heat, and cold) is impaired and soon lost.

Skin and tendon reflexes are soon weakened, and then lost.

Electrical irritability of the nerves to the faradic and galvanic currents gradually diminishes, and is soon entirely lost.

The anatomical changes of the nerves consist of swelling of the connective tissue, disintegration of the myelin, and some increase in the number of the nuclei of the sheaths of Schwann. The axis cylinders become cloudy, sometimes disintegrate and entirely disappear.

If a collateral circulation is speedily established improvement, or even recovery, occurs in the nerve functions.

The muscles are less involved than the nerves. SPILLER.

250. UEBER MYELITIS ACUTA (Concerning Acute Myelitis). H. Hochhaus (Deutsche Zeitschrift für Nervenheilkunde, Vol. 15, Nos. 5 and 6, p. 395).

Acute myelitis has been believed by Oppenheim to be a rare disease, but four cases observed by Hochhaus within two years would seem to indicate that it may not be so exceedingly uncommon. The duration of the process in these four cases ranged from twenty-six days to two months and twenty-five days. The clinical course was not abnormal. The prodromal symptoms—chiefly pain in the arms and legs—were short, and in one case were absent. Paralysis developed very quickly, *i. e.*, within a few hours or two days. Death occurred from pulmonary or nephritic complication. The cause in one case was cystitis or pyelonephritis, in another it was probably acute tonsilitis. Hyperemia, perivascular cellular infiltration, and small hemorrhages were found. These changes extended throughout the cord; in one case into the brain, and in another to the medulla oblongata and pons. Swollen axis cylinders were rare, but fatty, granular cells were numerous. The neuroglia cells were in places increased in number. The gray matter escaped to a remarkable degree, except in one case. Meningitis, of different intensity, was found in all the cases, and in two cases foci of softening were found in the posterior columns. The peripheral nerves and muscles were examined in one case and found diseased. SPILLER.

251. UN CASO MORTALE DI COREA DEL SYDENHAM CON RICHERCHE BACTERIOSCOPISCHE ED ISTOLOGICHE (A Fatal Case of Sydenham's Chorea, with Bacteriological and Histological Examination). G. Daddi and R. Silvestrini (La Settimana Medica, July 1889, No. 29, pp. 337-341, and No. 30, pp. 351-353).

This case deals with an unmarried domestic, of 17 years, whose previous history had been good up to the age of 12, when her mother died of some chronic pulmonary trouble. The family history was good from a nervous and mental point of view, excepting for the fact that her brother had convulsions at the age of 4 and became hemiplegic. After the death of her mother the patient developed an eczema of the scalp, which was followed by permanent enlargement of the cervical glands. At 16 she was seized with severe pains in the right leg and the latter became swollen, especially in the neighborhood of the knee and ankle. She was not confined to her bed, and the trouble disappeared in about three weeks. After this she had another attack of eczema, which soon got well under treatment, but was followed by renewal of the pains in the right leg and by slight palpitation of the heart. Twenty days before coming under the author's observation the patient began to exhibit choreiform movements, especially of the right arm and leg, which later involved the cervical and facial muscles, and ultimately the left side. These movements finally became so severe that the patient could not lie down; alimentation was with difficulty secured, and her speech also suffered. There was marked evidence of hallucinations of sight, and she spent much of her time before an open window